

WHAT IS CLAIMED IS:

1. An image reading apparatus comprising:
an original plate on which a transparent
original is installed;

5 a transparent original guide unit for
installing the transparent original at a
predetermined position on said original plate;

a light source unit constituted so that it can
be installed at plural positions with respect to said
10 transparent original guide unit and having a surface
light source for illuminating the transparent
original; and

an image reading unit for reading an image of
the transparent original through said original plate;

15 wherein the transparent original is installed
inside of said transparent original guide unit
installed on said original plate and in contact with
said original plate and;

said light source unit is contacted with the
20 transparent original and urges the transparent
original against said original plate.

2. An image reading apparatus according to
claim 1, wherein the transparent original is urged
25 against said original plate by a weight of said light
source unit itself.

3. An image reading apparatus according to claim 1, wherein an effective illuminating surface of said light source unit is greater than an entire image surface of one of plural images included in the transparent original and smaller than the entirety of the plural images.

4. An image reading apparatus according to claim 1, wherein said image reading unit includes a focus lens having a rod lens array.

5. An image reading apparatus according to claim 3, wherein a contact surface between said light source unit and said transparent original guide unit is provided with sliding preventing means.

6. An image reading apparatus according to claim 5, wherein said sliding preventing means have a configuration including continuous triangular or wave-shaped or similar combinable shapes and a plurality of said sliding preventing means are provided on both said light source unit and said transparent original guide unit continuously or discontinuously.

7. An image reading apparatus according to claim 5, wherein said sliding preventing means are

formed by sticking soft members having great coefficient of friction onto one or both of said light source unit and said transparent original guide unit.

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8. An image reading apparatus according to claim 3, wherein a transparent original having plural image frames can be installed in said transparent original guide unit, and a maximum width of the effective illuminating surface of said light source unit is smaller than a longitudinal side of an effective image area of an entire maximum transparent original settable in said transparent original guide unit.

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9. An image reading apparatus according to claim 3, wherein said transparent original guide unit has transparent original installing reference means and an image position mark, and said light source unit has an image position aligning mark corresponding to the image position mark of said transparent original guide unit.

10. An image reading apparatus according to claim 1, wherein said image reading unit is designed to illuminate light source light onto a reflection type original installed on said original plate and to

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read the image by photo-electrically converting light reflected from a surface of the original.

11. An image reading apparatus according to
5 claim 3, further comprising positioning means for determining a relative position between the transparent original and said transparent original guide unit and said light source unit, and wherein, by the positioning of said positioning means, said
10 light source unit can illuminate the entirety of at least any one image surface of among plural images included in the transparent original.

12. An image reading apparatus according to
15 claim 11, wherein said positioning means include a regulating portion for positioning the transparent original with respect to said transparent original guide unit.

20 13. An image reading apparatus according to claim 11, wherein said positioning means include a convex/concave portion provided between said transparent original guide unit and said light source unit.

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14. An image reading apparatus according to claim 1, wherein R-working is provided partially or

totally on an outer periphery of a light emitting surface of said light source unit.

15 15. An image reading apparatus according to claim 14, wherein R-working is provided partially or totally on an outer periphery of a surface of said light source unit with which the transparent original is contacted.

10 16. An image reading apparatus according to claim 1, wherein an elastic member is provided along an outer periphery of a rectangular hole formed in said transparent original guide unit at a side of said transparent original guide unit opposed to said
15 original plate.

 17. An image reading apparatus for reading a transparent original in which a transparent original illuminating device, a transparent original, an
20 imaging lens and a reading sensor are arranged in order,

 wherein said transparent original illuminating device is provided at its transparent original side with a plurality of urging portions disposed at
25 positions corresponding to an out of an image area of the transparent original and protruded above a light generating surface, and the transparent original is

urged against said transparent original plate by said urging portions.

18. An image reading apparatus according to
5 claim 17, wherein both surfaces of the transparent original are located within the depth of field of said imaging lens by positioning the light emitting surface of said transparent original illuminating device at the transparent original side, said
10 plurality of urging portions and a surface of said transparent original plate at the transparent original side within the depth of field of said focusing lens.

15 19. An image reading apparatus according to claim 17, wherein said plurality of urging portions are provided on an out of a light emitting area of said transparent original illuminating device.

20 20. An image reading apparatus according to claim 17, wherein each of said plurality of urging portions is greater than a perforation hole of the transparent original.

25 21. An image reading apparatus according to claim 17, further comprising a transparent original guide rested on said transparent original plate and

adapted to determine positions of the transparent original and said transparent original illuminating device.

5 22. An image reading apparatus according to claim 21, wherein said transparent original guide is provided with a spacer member located at a position out of an image area of the transparent original and inside of said urging portions between the
10 transparent original and said transparent original plate.

 23. A transparent original illuminating apparatus which is to be installed on a transparent
15 original plate together with a transparent original when the transparent original is read by an image reading apparatus in which said transparent original plate, an imaging lens and a reading sensor are arranged in order,

20 wherein said transparent original illuminating apparatus is provided at its transparent original side with a plurality of urging portions disposed at positions corresponding to an out of an image area of the transparent original and protruded above a light
25 generating surface, and the transparent original is urged against said transparent original plate by said urging portions.

24. A transparent original illuminating apparatus according to claim 23, further comprising a transparent original guide for determining a position with respect to the transparent original.